III REMARKS

Item numbers refer to corresponding numbered paragraphs in the Office Action.

Item 4. Drawings

The drawings were objected to under 37 CFR 1.83(a) for not showing the claimed intermediate tower sections. The claims to which the Examiner objected have been amended to remove the objection. Drawing changes are therefore unnecessary.

Item 5. Disclosure

The disclosure was objected to because at page 6, line 12 "cable" is misspelled as "cbale". Correction is made by this amendment.

Items 6-7. Claims Rejection - 35 USC § 112

The Examiner has rejected claims 18-21 under 35 U.S.C. as failing to comply with the written description requirement, stating that "The examiner finds no support in the originally filed disclosure for the 'pushing' limitations".

The following excerpt is from page 4, lines 12-14 of the originally filed specification and is also found in the provisional application upon which the present application is based (underlining added):

> Since the method of the invention employs a telescoping hydraulic crane that <u>pushes</u> hinged sections of the tower into position, it therefore minimizes the crane reach and the corresponding high bending moments exerted on the crane base.

Items 8-9. Claims Rejections - 35 USC § 102b <u>Anderson</u>

Examiner has rejected claims 1, 2, 4, 10, 11 and 13-15 under 35 U.S.C. 102b as being anticipated by Anderson (US 3,009,546) stating that:

> Figure 2 shows upper section 21 with a top 70, lower section 7, and intermediate sections 13, 17 all hinged together. Lower section 7 is hinged to base 2. The sections start one under another as shown in figure 1 and are raised to a vertical position one above the other as shown in figure 3. Any point may be considered a lifting point.

Anderson (US 3,009,546)

Anderson discloses a folding tower structure having a base and at least three rigid sections hinged end-to-end and that fold back and forth in horizontal superimposed relation. A hinged connection is provided between the first section and the base. First and second grooved sector members are rigidly mounted on each of the second and third sections, respectively, adjacent the hinged connection between each of those sections and the downwardly adjacent section.

A first flexible line extends around the first sector member. The line has one end secured to the first sector member with the other end of the line secured to an anchor point on the base.

A second flexible line extends around the second sector member. The second line has one end secured to the second sector member with the other end secured to an anchor point on the first section.

The first section is rotated on its hinged connection with the base from a horizontal position. The flexible lines interact with the second and third sections so as to cause the second and third sections to rotate about their hinged connections with downwardly adjacent sections until the sections are raised upright in end-to-end vertical alignment.

Applicant's invention is distinguished over Anderson as follows. In applicant's invention, the lower section is first raised to a vertical position and then the upper section is raised to a vertical position above the lower section. This is accomplished by using a crane or cable to engage a lower lift point located such that a crane can engage the lower lift point and also by providing the upper section with an upper section lift point. In Anderson, flexible lines, (not a crane) interact with the sections so as to cause the sections to rotate about their hinged connections with downwardly adjacent sections until the sections are raised upright in end-to-end vertical alignment. Furthermore, as shown in figure 2 of Anderson, the upper sections are raised by virtue of cable actions to vertical positions above each lower section concurrently with raising the lower section 57 to a vertical position. In applicant's invention the upper section is raised to a vertical position above the lower section subsequent to raising the lower section to a vertical position.

Applicant's claims are distinguished over Anderson as follows:

Claims 1, 2, and 4:

D. raising said upper section to a vertical position above said lower section subsequent to said step C of raising said lower section to a vertical position.

Claims 10, 11, and 13:

a lower lift point located such that a crane can engage said lower lift point

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said upper section having an upper section lift point

Claims 14, and 15 have been cancelled:

Item 10. Claims Rejections - 35 USC § 102b Stokoe

Examiner has rejected claims 1-3, 10-12 and 18-20 under 35 U.S.C. 102b as being anticipated by Stokoe (US 4,643,273) stating that:

> Stokoe provides lower section 6 hinged to an upper section 10 and base 5. A load 13 is attached to the top of the upper section 10. Telescopic cranes 15 and 16 push the tower sections 6 and 10 to the vertical position.

Stokoe (4,643,273)

Stokoe discloses a mobile elevated work platform commonly referred to as a "cherry picker" or "bucket truck" that lifts a work platform on a boom. The access equipment includes a turntable on a mobile base. The lift has a lower boom and an upper boom with a work platform or bucket carried by the upper boom. The operation of the lower and upper booms are interlocked so that the lower boom must be locked in an elevated position between 50 degrees and 70 degrees to the horizontal before the upper boom can be elevated. The upper boom is extensible horizontally.

Column 3, lines 18-26:

> It will be seen that the cage 13 is in an inclined position during transit of the unit. The first operation once the working base has been established is the raising of the lower boom 6 to an elevated position as shown in FIG. 2. In the embodiment illustrated, the boom 6 is fully elevated when it is at an angle of about 60 degrees to the horizontal; however other designs of unit may conveniently employ different angles, for example 50 degrees or 70 degrees to the horizontal.

See also Stokoe claim 4:

4. Access equipment according to claim 1, wherein said second hydraulic ram cannot be operated until said lower boom has been locked in a position extending upwardly at an angle of between about 50 degrees and about 70 degrees relative to the horizontal.

As can be seen for the above excerpts, the locking mechanism prevents the upper boom from being raised until the lower boom is raised. Since the lower boom cannot be raised higher that 70 degrees, it cannot be raised to vertical as called for in applicant's claims.

Applicant's invention is distinguished over Stokoe as follows:

Claims 1-3:

C. raising said lower section to a vertical position such that said tower bottom rests on said tower base;

In applicant's claims 1-3 the lower section is raised to a vertical position. In Stokoe, the lower section is not raised to a vertical position, and the upper section is prevented from moving until the lower section reaches its maximum angle of between 50 and 70 degrees.

Claims 10-12:

a lower lift point located such that a crane can engage said lower lift point and lift said sections to a vertical position subsequent to said lower section being hinged to said tower base, such that said sections being in a vertical position said lower section tower bottom rests on said tower base and said top of said upper section is located near said base in order to facilitate attaching a load to said tower top;

In applicant's claims 10-12 a lower lift point is located such that a crane can engage said lower lift point and lift said sections to a vertical position. In Stokoe, the lower section only achieves a maximum angle of between 50 and 70 degrees.

Claims 18-20:

In applicant's claims 18-20 the lower section is raised to a vertical position. In Stokoe, the lower section is not raised to a vertical position, and the upper section is prevented from moving until the lower section reaches its maximum angle of between 50 and 70 degrees.

Examiner's assertion that "Telescopic cranes 15 and 16 push the tower sections 6 and 10 to the vertical position" is not supported by the Stokoe disclosure. In Stokoe the lower section is fully elevated before reaching a vertical position, its maximum elevation being an angle of between 50 and 70 degrees:

> In the embodiment illustrated, the boom 6 is fully elevated when it is at an angle of about 60 degrees to the horizontal; however other designs of unit may conveniently employ different angles, for example 50 degrees or 70 degrees to the horizontal. (Stokoe Column 3, lines 22-26):

Item 12. Claims Rejection - 35 USC § 103 (a) Anderson

Examiner has rejected claims 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,009,546 to Anderson stating that:

> Anderson provides each of the elements/steps of these claims except for providing a heavy load at the top of the upper section. Platform 70 is designed to be a working platform or support the boom of a derrick (column 4, line 70). This would suggest to one of

ordinary skill in the art at the time of the invention that platform 70 can support a heavy load.

These claims are patentable for the reasons stated above with reference to claim 14.

Item 13. Allowed Claims 5- 9, and 22-24

The Examiner has indicated claims 5- 9, and 22-24 as allowable.

Re-examination and allowance of claims 1-24 is respectfully requested.

Respectfully submitted,

Date: November 4, 2004

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November 4, 2004